

PATENT COOPERATION TREATY

10/532790

## PCT

## INTERNATIONAL-TYPE SEARCH REPORT

(PCT Article 15.5)

National application No. 0203220-9	Country or Office of filing SE	Applicant's or agent's file reference A02 P 2024 SE
Filing date (day/month/year) 31 October 2002	(Earliest) Priority Date (day/month/year)	
Applicant St. Jude Medical AB		

Date of request for international-type search 31 October 2002	International-type search request No. SE 02/00999
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This international-type search report has been prepared by this International Searching Authority and is transmitted to the applicant.

This international-type search report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).
2. ☐ Unity of invention is lacking (See Box II).
3. ☐ The international application contains disclosure of a nucleotide and/or amino acid sequence listing and the international-type search was carried out on the basis of the sequence listing
  - ☐ filed with the international application.
  - ☐ furnished by the applicant separately from the international application,
    - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
  - ☐ transcribed by this Authority.

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This international-type search report has not been established in respect of certain claims for the following reasons:

- Box II      Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

see next page

- Remark on Protest** ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

## Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

The requisite unity of invention (Rule 13.1 PCT) does not exist inasmuch as a technical relationship involving one or more of the same or corresponding special technical features in the sense of Rule 13.2 PCT does not exist between the subject-matter of the following groups of dependent claims:

## 1. Claims: 1-13,15

A motion sensor for measuring a patient's activity level, comprising a fluid comprising at least one anisotropic fluid.

## 2. Claim 14

An Electrically detectable anisotropic fluid comprising a liquid crystalline polymer as the anisotropic fluid, which LCP is covalently bound to an iron-oxide nanoparticle.

Prior art has been defined as:

Document D1: US5755741 A

First invention:

From a comparison of claims 1 and 15 and the prior art the following technical features can be seen to make a contribution over the prior art (Special technical features, Rules 30(2) EPC):

Claim 1 and 15:

A motion sensor characterised by that the fluid comprises at least one anisotropic molecule, the anisotropic properties of which are changed in relation to the motion of a fluid, whereby the state of the anisotropic is detectable by electrodes.

From these technical features, the objective problem to be solved is how to construct a non-mechanical motion sensor, which is possible to minimise.

Second invention:

From a comparison of claims 1 and 15 and the prior art the following technical features can be seen to make a contribution over the prior art (Special technical features, Rules 30(2) EPC):

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of:

Claim 14:

An electrically detectable anisotropic fluid comprising a liquid crystalline polymer as the anisotropic fluid,

which LCP is covalently bound to an iron-oxide nanoparticle.

From these technical features, the objective problem to be solved is how to produce an electrically detectable anisotropic fluid.

A comparison of the objective problem 1 with the objective problem 2, seen in the light of the description and the drawings of the present application, indicates that there is no technical correspondence between these problems; nor do they show any corresponding technical effect, so that the Special Technical Features of invention 1 (claims 1 and 15), fail to demonstrate a correspondence with the Technical Features of invention 2 (claim 14), thus not satisfying Article 82 and Rule 30(2) EPC.

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A61B 5/11 // A61N 1/365, C09K 19/02  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A61B, G01P, G01C, A61N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, INSPEC, BIOSIS, MEDLIN

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5233984 A (THOMPSON, D.L.), 10 August 1993 (10.08.93), column 2, line 43 - column 3, line 10, figure 2	1-13,15
A	US 5755741 A (VOGEL, A.B.), 26 May 1998 (26.05.98), column 2, line 34 - line 56, figures 1, 2	1-13,15
A	US 5833713 A (MOBERG, S.B.), 10 November 1998 (10.11.98), abstract	1-13,15

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international-type search

12 May 2003

Date of mailing of the international-type search report

2003-06-27

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Swedish Patent Office

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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Form PCT/ISA/201 (continuation of second sheet) (March 1993)

INTERNATIONAL TYPE SEARCH REPORT  
Information on patent family members

02/06/03

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US	5233984	A	10/08/93	AU	1647892	A	02/11/92
				WO	9217241	A	15/10/92
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US	5755741	A	26/05/98	NONE			
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US	5833713	A	10/11/98	AT	225201	T	15/10/02
				AU	7330794	A	13/02/95
				DE	69431469	D,T	13/02/03
				EP	0669842	A,B	06/09/95
				US	5425750	A	20/06/95
				WO	9502431	A	26/01/95
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US	4869251	A	26/09/89	DE	3770715	D	00/00/00
				EP	0254945	A,B	03/02/88
				JP	2082791	C	23/08/96
				JP	7112493	B	06/12/95
				JP	63094165	A	25/04/88
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